

USSN 09/840,859

Remarks

As of the latest Office Action, Claims 1-67 were pending in the application. By the foregoing amendment, Applicants have amended claims 1, 4 - 7, 9, 11, 14 – 16, 19 – 21, 24, 39, 60 and 63, deleted claims 10 and 67 and added new claim 113. As further noted below, no new matter is entered as the amendments to claims 1 and 60 merely incorporate the limitations of claims 10 and 67, respectively. The amendment to claims 16 and 17 correct a typographical error. New claim 113 corresponds to the amended claim 1 further incorporating the claim limitations of claims 3 and 4. All other amendments pertain to claim dependency to clarify the same and to account for the deletion of the aforementioned claims.

Art Rejections

Claims 1-67 stand rejected under 35 USC 102(b) as being anticipated by or, in the alternative, under 35 USC 103(a) as being obvious over either Perrin et. al. or Jackson et. al. The Patent Office, by reference, reiterated its prior rejection set forth in paragraph 7 of Paper No. 10, and supplemented the same with its allegation that the present claims merely read upon “a thin, presumably metal sheet characterized as a “susceptor” which is coated with a suitable heat activatable adhesive...on at least one surface.” Further the Patent Office contends that in order to meet the claimed performance parameters regarding its relationship with a “test surface congruent in shape with the susceptor” one could employ a wide variety of flat surfaces as shown by the references or that such would be inherent in the references or an obvious optimization to one of ordinary skill in the heat transfer laminate art. The Patent Office then goes on to reflect upon several dependent claims and their limitations for added features contending that the same are expressly or inherently present in the references or at most an obvious optimization to one of ordinary skill. Finally, the Patent Office states that Brooks is no longer a primary reference since it fails to show the adhesive directly on the susceptor but is relevant for teaching that the adhesive may be applied in a variety of patterns.

Applicants respectfully traverse the rejection and requests consideration for the reasons set forth in their prior response to Paper No. 10, the subsequent responses, including, in particular, the Declaration of Mark R. Holzer accompanying the response to the Office Action dated June 24, 2003, and the reasons set forth below.

USSN 09/840,859

Because of the breadth of the Patent Office's rejection, particularly with respect to the recitation "anticipated by...or, in the alternative,...as obvious over" as applied to all pending claims, it is unknown whether the anticipation rejection applies to all or only some claims and whether the obviousness rejection applies to all or only some claims. Furthermore, with the text employed, there is little basis for being able to ascertain the specific grounds of anticipation for each claim, if applicable. Applicants respectfully request clarification and delineation as to which claims are deemed anticipated, and on what grounds, and which claims are deemed obvious, and on what grounds.

Despite the lack of clarity and specificity of the rejections and the bases therefore, given the finality of the rejection and Applicants' desire to ensure that the issues for appeal are clearly established, Applicants hereby respond in a likewise, general fashion.

Anticipation requires that every aspect of the claimed invention be disclosed expressly or inherently in a single reference. Furthermore, as noted at MPEP 2131, citing Richardson, "the identical invention must be shown in as complete detail as is contained in the...claim." However, the Patent Office apparently establishes its "express" anticipation by stripping away Applicants' "patentably insignificant methods of contemplated usage" so as to arrive at the Patent Office's vision of the invention as being "a thin, presumably metal sheet characterized as a "susceptor" which is coated with a suitable heat activatable adhesive...on at least one surface." (See Paragraph 7, Paper No. 10 and Paragraph 2 of the latest Office Action). However, in doing so, the Patent Office has stripped away the very essence of Applicants' invention and ignored its aforementioned obligation to show that the reference shows the invention in as complete detail as is contained in the claim, all in an apparent effort to find a way to reject the claims. As Applicants have reiterated over and over, throughout the course of this prosecution, the most critical aspect of Applicants invention is the adhesive pattern that is employed, both in terms of its dimensions and its surface coverage. Stripping away these critical parameters and claim limitations is unwarranted and inappropriate. Applicants make no claim to fastening devices wherein the adhesive fully covers the whole of the susceptor: an embodiment that the Patent Office is trying to create by its actions. Regardless, anticipation is not found with either reference.

USSN 09/840,859

Jackson et. al. teach hot melt adhesive compositions having improved bond aging characteristics. The adhesive may be applied in a molten form with a spatula or regular extrusion equipment or as a film between the surfaces to be bonded (Jackson, Col. 4, lines 52-56). In the examples, Jackson employs a 1 inch wide strip of 6 mil, tin-free steel (Col. 6, lines 5-7) to which a "...molten polymer is evenly spread...over a 2 inch length with a wooden spatula". (Col. 6, line 16-18) Jackson does not expressly or inherently teach or disclose an adhesive pattern meeting the strict limitations of the present invention. Jackson does not teach or suggest that the metal test pieces could be employed as bonding devices themselves or that they could be heated by exposure to electromagnetic energy. Instead, Jackson places the test pieces on a hot plate in order to melt the adhesive. Thus, there is no express anticipation. Additionally, and without question, Jackson does not anticipate dependent claims 3 and 62 or new independent claim 113 which require that the susceptor be no more than about 2 mils in thickness. Again, there is no anticipation.

Perrin et. al. teach a device for bonding and sealing components of a container for preventing unauthorized refilling or tampering of the contents of the container. As shown, the adhesive film is a continuous film coving 100% of the susceptor. Further, no recitation is made with respect to the dimensions of the susceptor or adhesive. Thus, there is no express teaching of the limitations with respect to the susceptor or the pattern of the adhesive. More importantly, since Applicants now specify that only up to about 65% of the test surface on a post-bonding basis can be covered by adhesive, the Perrin teaching of 100% coverage does not expressly anticipate the present invention.

For anticipation by inherency the Patent Office "must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." Ex Parte Levy, 17 USPQ 2d 1461, 1464 (1990). No such basis in fact or technical reasoning has yet to be provided by the Patent Office. Instead, as noted above, the Patent Office has elected to strip away and ignore the key and critical elements of Applicants' claims. As further noted in the MPEP 2112, "To establish inherency, the extrinsic evidence 'must make clear that the missing descriptive matter is

USSN 09/840,859

necessarily present in the thing described in the reference, and that it would be so recognized by persons of ordinary skill. Inherency may not be established by probabilities or possibilities. The mere fact that a certain thing may result from a given set of circumstances is not sufficient.” In re Robertson, 169 F.3d 743, 745 (1999). There can be no doubt that the Patent Office has failed to meet its obligations here. Perin teaches a bonding device which is capable of creating a seal so that the contents of the container cannot be replaced or tampered with. Going away from the continuous adhesive film shown in Perin would likely result in a bond but not a seal: thus, enabling the tampering of the contents of the adhesive. It is not understood nor is there any basis set forth by the Patent Office as to why a discontinuous adhesive or an adhesive having the critical limitations of the adhesive patterns of the present invention, particularly one that specifically allows for gaps in the adhesive bond, would be inherent from Perin. Similarly, Jackson teaches adhesive compositions and is essentially devoid of teachings on the application thereof to a substrate, other than as specifically mentioned above. Nothing in Jackson would suggest that its adhesive is to be applied in other than a continuous film through the bond line/area or that the adhesive bond formed is other than a continuous film through the bond line/area. Nothing in Jackson gives rise to or suggests using its new materials in the manner specifically required by Applicants’ invention. The mere fact that one could do it, that such a possibility exists, is not the point. Rather, the issue at hand is whether each reference, standing on its own, teaches one to do as applicants claim or presents such a full and clear understanding of the general premise of the invention that, in spite of certain gaps or lapses in the teaching of the reference, there exists sufficient knowledge in the art and/or technical facts to naturally and without the application of thought fill in the gaps so as to arrive at the specificity and limitations of the present invention. Looking at the references and understanding the art, there is no doubt but that anticipation cannot be found.

While the foregoing arguments are clearly directed towards the rejections of independent claims 1 and 60, they are equally applicable to all claims which the Patent Office has deemed anticipated. Furthermore, neither of the references teach or suggest, expressly or inherently, many other aspects of the present invention as claimed in the dependent claims including, for example, the myriad of further limitations as to the adhesive patterns in terms of both the dimensions of the adhesive itself and the surface area coverage, both pre-bonding and post-

USSN 09/840,859

bonding as in claims 2, 4-9, 15, 39 – 42, 61 and 63 – 66; the susceptor thickness as in claims 2, 62 and 113, the presence of a supplemental layer as in claims 11 – 13, and so on. Further explicitness on Applicants' part is inappropriate at this time (and purely speculative) since the Patent Office itself has failed to specifically identify which claims have been deemed anticipated and the basis for such conclusion.

The Patent Office has also rejected claims 1 - 67 as being obvious in view of Jackson and Perin. Later in Paragraph 2 of the Office Action reference is also made to Brooks, although no specific rejection is articulated based upon Jackson and/or Perin in view of Brooks. Nevertheless, Applicants will respond to such as if it were presented for purposes of endeavoring to avoid appeal and/or for more clearly establishing the issues for appeal.

To establish a Prima Facie case of obviousness a) there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine the reference teachings, b) there must be a reasonable expectation of success and c) the prior art reference or references when combined must teach or suggest all the claim limitations. (MPEP 2143) As with anticipation, the grounds for rejection may be based, at least in part, on implicit disclosure or inherency.

Looking at the two primary references, neither, alone or combined, suggest or motivate one to produce an adhesive device having the specific construction as now claimed. As noted above, Perin employs an adhesive which does and essentially must cover the whole of the foil to provide the seal capabilities desired. Jackson, as noted, provides no specific direction for the use of its materials other than as mentioned above. Neither reference teaches, suggests or motivates one to use an adhesive system on an electromagnetic receptor, the "susceptor", or the specific and limited adhesive pattern as claimed. What little is taught about the application of the adhesive is directed towards the preparation of a continuous film of adhesive. Neither reference, alone or in combination, teach or suggest adhesive patterns meeting the specific claim limitations. Furthermore, neither reference, alone or in combination, suggest the unexpected results obtained by Applicants, as more clearly set forth in the previously submitted Declaration of Mark R.

USSN 09/840,859

Holzer. Consequently, standing on their own, neither reference is sufficient to establish a Prima Facie case of obviousness.

Reliance upon Brooks does not overcome the deficiency in the Patent Office's efforts to establish Prima Facie obviousness. Brooks does, as noted in the Office Action, teach that the adhesive may be applied "as one or more longitudinally extending ribbons or beads or as individual beads or in a pattern or the like"; however, in the preceding sentence, Brooks states that the adhesive "is preferably applied as a layer to substantially cover the upper surface of the second foil strip..." (Col. 3, lines 31-34) Setting aside the fact that Brooks is teaching a device that is activated by resistive heating versus that of Applicants which is activated by exposure to electromagnetic energy, Brooks is teaching away from the use of patterns and teaches nothing of the specific patterns as required and defined by the present claims. Though the Patent Office alludes to Applicants' efforts as optimization, the reality is that Applicants have moved away from the preferred embodiment of Brooks, a move which contradicts the argument of optimization. In essence, one would not go in the opposite direction of the preferred teaching to achieve optimization. Furthermore, even recognizing that Brooks suggests the possible use of a "discontinuous" adhesive, the test is not a matter of "obvious to try" but of whether the modification and results were obvious. Nothing in the primary references alone or in combination with Brooks would suggest the unexpected results as attained by Applicants' invention. Indeed, neither the scientific theory nor common knowledge in the art would suggest that one could achieve a stronger bond with less adhesive by using the specific patterns of the present invention. Certainly, the bonds attainable with the present invention are not as strong as would be attained with using an adhesive that covered 100% of the susceptor, as preferred by Brooks and as taught by Perin; however, by establishing bonds with the adhesive patterns as claimed, one attains a high degree of bond strength with removability, even as compared to bonds of similar and even greater bond area: a result that is clearly not expected.

Furthermore, reliance upon implicitness or inherency does not help overcome the foregoing deficiencies. Yes, as noted above, Brooks does teach that the adhesive in its application may be applied in a number of different configurations or patterns; yet, Brooks clearly indicates that such is not preferred. Furthermore, the teaching of Brooks in that regard is essentially non-

USSN 09/840,859

enabling. Brooks merely makes the general statement as recited in the Office Action. There is no definition as to the dimensions and/or surface coverage to be attained with such adhesive patterns if one were to use the same. The Patent Office has alluded to no art, common knowledge or technical fact that would lead one to the specific, critical parameters of the adhesive patterns of the present invention. To contend, as the Patent Office does, that Applicants' efforts are a matter of optimization is also without merit. Optimization for bond strength would be 100% coverage, as taught by all the cited references. True, those in the art would recognize that one could save on adhesive costs by reducing the amount of adhesive, but such would be concurrent with a loss in adhesive bond strength. This is in fact shown in the Declaration of Mark R. Holzer. But, what is not expected and what is also shown in the aforementioned Declaration is that by selection of specific adhesive patterns with specific area coverage, as currently claimed, one is able to attain the same or better bond strength with considerably less adhesive. Such an unexpected result cannot be implicit or inherent in the art and, thus, such results overcome any allegation of obvious.

In view of the fact that the Patent Office has failed to establish the requisite criteria for making a Prima Facie case of obviousness and, even if one were made, the fact that Applicants have attained unexpected results with their critical limitations and definition as to the adhesive patterns to be employed in bonding methods employing electromagnetic energy, the rejection under 35 USC 103 has been overcome and must be withdrawn.

Withdrawal or Reissue of the Final Rejection

Applicants respectfully request that the Patent Office withdraw or reissue the Final Rejection. Reissuance of the Final Rejection is appropriate inasmuch as the Patent Office has failed to set forth sufficient specificity with respect to which claims are subject to the anticipation and which claims are subject to the obviousness rejections as well as the individual bases therefore. Consequently, even though Applicants have endeavored to address the issues raised as well as those that may be inferred from the Office Action, Applicants cannot be sure that they have addressed all the potential rejections conceived of by the Patent Office. This request is particularly relevant for purposes of appeal, should appeal be necessary, since Applicants do not clearly know which claims are deemed anticipated and which claims are deemed obvious. It will

USSN 09/840,859

be impossible to prepare a fully responsive and detailed Appeal Brief without the full, clear and concise grounds of each rejection being known. Thus, in accordance with MPEP 706.07, the issuance of a Final Rejection at this time is premature.

Notwithstanding the foregoing, reissuance of the Final Rejection is only necessary if the Patent Office intends to hold to the present Final Rejection so that Applicants can fully and more clearly respond to each specific allegation of anticipation and/or obviousness. A withdrawal of the Final Rejection seems more appropriate at this time, and not just because the basis for rejection of each claim is unclear. Though the Patent Office contends that Applicant's amendment necessitated the new grounds of rejection, such is not supported by the history of this application. As the Patent Office acknowledges, the present rejection is, in all essence, merely a reiteration of the rejection made in Paper No. 10, which Applicants thought had already been overcome since the Patent Office moved in a different path following Applicants' response to that and the subsequent Office Action which reiterated the prior rejection. Clearly, the grounds and bases for the rejection already existed and were not necessitated by Applicants' amendments.

In addition, the Final Rejection and, clearly, an appeal, seem inappropriate at this time. Based on the current rejection, as well as that of Paper No. 10, the Patent Office appears to be continuing in its avoidance of or efforts to ignore the critical aspects of the present invention. For example, in both Paper No. 10 and the present Office Action, the Patent Office seems to focus on the topography of the surface of the test piece as being a performance parameter of the present invention. Specifically, the Patent Office states that meeting "the claimed performance parameters regarding its relationship with a 'test surface congruent in shape to the susceptor surface' is believed to require in the most common of cases only the presence of, e.g., a wide variety of essentially flat sheet surfaces..." However, the topography of the test pieces is of little relevance to the critical aspect of the present invention. Yes, topography can help with respect to endeavoring to attain an even bond thickness; however, Applicant's reference to a test piece having a "congruent shape" with the susceptor means that the traces of the outline or outer edges of the susceptor and the test piece should be the same. Thus, this aspect of the invention should not be the focus of patentability; rather, the focus is on the pattern and surface area coverage of the adhesive itself.

USSN 09/840,859

Entry of the Amendment and Response

Should the Patent Office maintain the Final Rejection without its reissuance, it is hereby requested that this Amendment and Response be entered for purposes of appeal. The amendments made herein do not raise new issues nor require further consideration and/or search; rather they place the application in better form for appeal by materially reducing the scope of the claims. The amendments made herein merely incorporate narrower limitations from prior claims for more clearly differentiating over the art. Indeed, the addition of the limitation on the susceptor thickness in new independent claim 113 specifically addresses the comment of the Patent Office in addressing the aforementioned Declaration of Mark R. Holzer that that claims do not include the reference to the "ultra thin layer of the susceptor itself." (See the last sentence of Paragraph 5 of the Office Action dated February 10, 2004. Similarly, incorporation of the limitation with respect to the surface area covered by adhesive on a post-bonding basis has been a feature of the claims, albeit certain dependent claims, since the initial filing. Adding these limitations to all the independent claims narrows the scope of the claims and helps focus the same on embodiments of the present invention that have, or are more likely to have, ease of reversibility: a theme that has been repeated in the course of prosecution. Thus, the subject matter of all claims, amended or not, has been or should have been searched and considered previously. Applicants had not previously submitted these amendments as Applicants felt and continue to feel that such narrowing amendments are unnecessary. Nevertheless, Applicants now make the amendments set forth herein for purposes of expediting allowance and/or simplifying the issues for appeal. Applicants reserve the right to refile the original claims in a further patent filing based on the instant application.

Fees

No fees are necessary as the number of independent claims and the total number of claims now presented do not exceed the numbers previously paid for. By this amendment, the number of independent claims has been increased to three: the number included in the base filing fee. The total number of claims overall has been reduced by one.

USSN 09/840,859

Conclusions

In light of the foregoing amendments and discussion, Applicants believe that all allegations of anticipation and obviousness have been fully rebutted and overcome. Applicants believe the present application is now in condition for allowance and early and favorable consideration is hereby requested. Should there be any questions, please contact the undersigned, Applicant's attorney.

Respectfully submitted,



Edward K. Welch II
Attorney for Applicants
Reg. No. 30,899
c/o Frost Brown Todd LLC
2200 PNC Center
201 East Fifth Street
Cincinnati, OH 45202-4182
Tel.: 781-718-9512
Fax: 978-412-0039
e-mail: welched@comcast.net